

TIMKEN**The Timken Company**

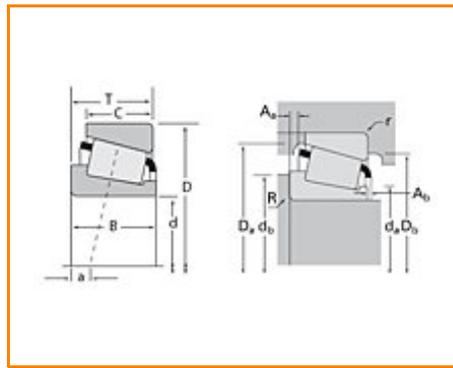
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Timken Part Number X32040XM - Y32040XM, Tapered Roller Bearings - TS (Tapered Single) Metric

This is the most basic and most widely used type of tapered roller bearing. It consists of two main separable parts: the cone (inner ring) assembly and the cup (outer ring). It is typically mounted in opposing pairs on a shaft.



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Specifications

Series	32040XM
Cone Part Number	X32040XM
Cup Part Number	Y32040XM
Design Units	METRIC
Bearing Weight	18.700 Kg 41.20 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	200 mm 7.874 in
D - Cup Outer Diameter	310 mm 12.2047 in
B - Cone Width	70 mm 2.7559 in
C - Cup Width	53.000 mm 2.0866 in
T - Bearing Width	70.000 mm 2.7559 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	3.050 mm 0.12 in
r - Cup Backface "To Clear" Radius²	2.54 mm 0.1 in
da - Cone Frontface Backing Diameter	219.96 mm 8.66 in
db - Cone Backface Backing Diameter	225.04 mm 8.86 in
Da - Cup Frontface Backing Diameter	297.43 mm 11.71 in
Db - Cup Backface Backing Diameter	283.97 mm 11.18 in
Ab - Cage-Cone Frontface Clearance	5.6 mm 0.22 in
Aa - Cage-Cone Backface Clearance	7.4 mm 0.29 in
a - Effective Center Location³	-3.3 mm -0.13 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁴	220000 N 49400 lbf
C1 - Dynamic Radial Rating (1 million revolutions)⁵	847000 N 191000 lbf
C0 - Static Radial Rating	1520000 N 342000 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	162000 N 36400 lbf

Factors

K - Factor⁷	1.36
e - ISO Factor⁸	0.43
Y - ISO Factor⁹	1.39
G1 - Heat Generation Factor (Roller-Raceway)	977.7
G2 - Heat Generation Factor (Rib-Roller End)	113.4
Cg - Geometry Factor	0.141

¹ These maximum fillet radii will be cleared by the bearing corners.

² These maximum fillet radii will be cleared by the bearing corners.

³ Negative value indicates effective center inside cone backface.

⁴ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values.

⁵ Based on 1×10^6 revolutions L_{10} life, for the ISO life calculation method.

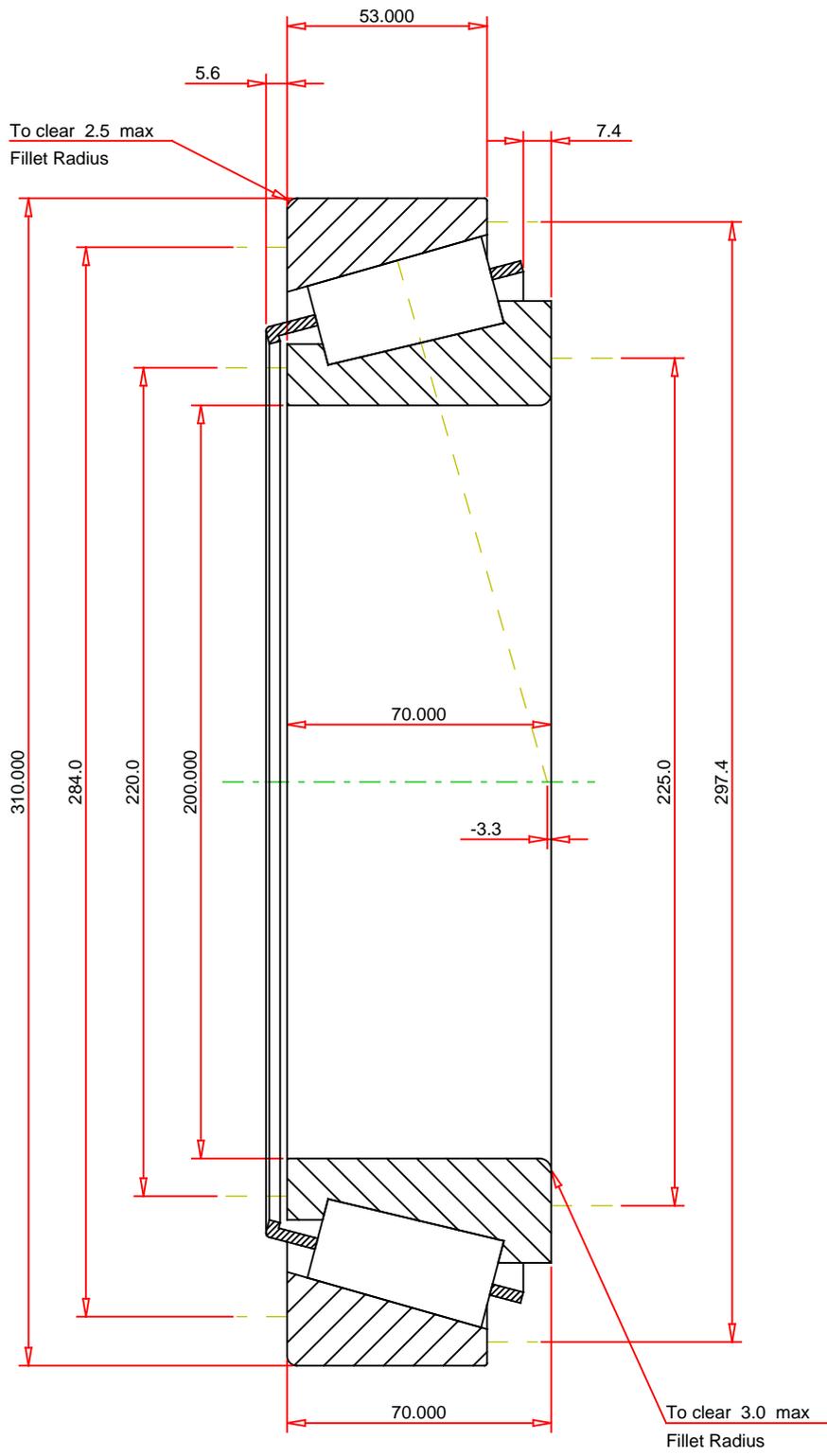
⁶ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values for a single-row, $C_{90(2)}$ is the two-row radial value.

⁷ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

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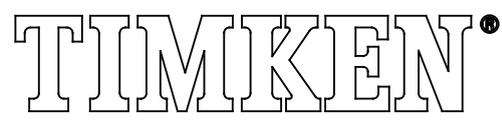
on use.

⁹ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.



METRIC UNITS

ISO Factor - e	0.43
ISO Factor - Y	1.39
Bearing Weight	18.7 kg
Number of Rollers Per Row	27
Effective Center Location	-3.3 mm



X32040XM - Y32040XM
TS BEARING ASSEMBLY

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

K Factor	1.36
Dynamic Radial Rating - C90	220000 N
Dynamic Thrust Rating - Ca90	162000 N
Static Radial Rating - C0	1520000 N
Dynamic Radial Rating - C1	847000 N

Every reasonable effort has been made to ensure the accuracy of the information contained in this writing, but no liability is accepted for errors, omissions or for any other reason.

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